## Print Generate Collection

L18: Entry 3 of 9

File: USPT

Aug 6, 1996

US-PAT-NO: 5543323

DOCUMENT-IDENTIFIER: US 5543323 A

TITLE: Plasmodium merozoite rhoptries antigenic polypeptides

DATE-ISSUED: August 6, 1996

INVENTOR-INFORMATION:

NAME

CITY

STATE

ZIP CODE

COUNTRY

Ridley; Robert G. Scaife; John G.

Edinburgh Edinburgh

GB3

GB3

US-CL-CURRENT: 435/252.3; 435/252.33, 435/254.11, 435/320.1, 435/69.3, 536/23.1, 536/23.7

## CLAIMS:

What is claimed is:

- 1. An isolated DNA sequence encoding a Plasmodium falciparum antigen associated with the rhoptry organelles of the merozoite form of the malaria parasite, wherein said antigen has a molecular weight of about 80,000 Daltons and comprises the amino acid sequence ##STR5##
- 2. A DNA sequence according to claim 1 comprising the nucleotide sequence ##STR6##
- 3. A unicellular host organism containing a recombinant vector comprising the DNA sequence of claim 2 and which host organism is capable of expressing the DNA sequence.
- 4. An isolated DNA sequence encoding a polypeptide, which polypeptide has at least one determinant immunologically cross-reactive with determinants on a Plasmodium falciparum antigen associated with the rhoptry organelles of the merozoite form of the malaria parasite, which antigen is about 80,000 Daltons and which polypeptide comprises the amino acid sequence ##STR7##
- 5. A DNA sequence according to claim 4 comprising the nucleotide sequence ##STR8##
- 6. A unicellular host organism containing a recombinant vector comprising the DNA sequence of claim 5 and which host organism is capable of expressing the DNA sequence.



## **End of Result Set**

Generate Collection Print

L18: Entry 9 of 9

File: USPT

Aug 30, 1988

US-PAT-NO: 4767622

DOCUMENT-IDENTIFIER: US 4767622 A

TITLE: Method and materials for development of immunological responses protective

against malarial infection

DATE-ISSUED: August 30, 1988

INVENTOR - INFORMATION:

NAME

CITY

STATE

ZIP CODE

COUNTRY

Ristic; Miodrag

Urbana

IL

Chilbert; Mary L.

Urbana

IL

US-CL-CURRENT: 424/268.1; 435/70.4, 530/350, 530/403, 530/822

## CLAIMS:

What is claimed is:

- 1. A vaccine composition for use in developing a protective immune response in a vertebrate animal susceptible to infection by Plasmodium flaciparum parasites, said composition comprising:
- (1) an immunologically effective amount of one or more water soluble proteinaceous immunogens having respective molecular weights within the range of about 35,000 and about 85,000, as determined by SDS-PAGE, produced in the course of the in vitro cultured growth and proliferation of Plasmodium falciparum parasites in a susceptible host erythrocyte cell culture and isolated from the host and parasite cell and cell fragment-free medium of such growth or host and parasite cell and cell fragment-free washes of infected host cells in such culture; and
- (2) an immunologically effective amount of immunologically acceptable carrier and adjuvant materials.
- 2. A vaccine composition according to claim 1 comprising one or both of two water soluble proteinaceous immunogens having respective molecular weights of about 42,000 and about 54,000.
- 3. A vaccine according to claim 1 wherein the susceptible erythrocytes are human erythrocytes.
- 4. A vaccine composition according to claim 1 wherein the immunologically acceptable adjuvant material is saponin.
- 5. A vaccine composition according to claim 1 wherein the immunologically acceptable adjuvant material is aluminum hydroxide.
- 6. A method for protecting a susceptible vertebrate against infection by Plasmodium falciparum parasites comprising administering a vaccine composition comprising:

- (1) an immunologically effective amount of one or more water soluble proteinaceous immunogens having respective molecular weights within the range of about 35,000 and about 85,000, as determined by SDS-PAGE, produced in the course of the in vitro cultured growth and proliferation of <u>Plasmodium falciparum</u> parasites in a susceptible host erythrocyte cell culture and isolated from the host and parasite cell and cell fragment-free medium of such growth or host and parasite cell and cell fragment-free washes of infected host cells in such culture; and
- (2) an immunologically effective amount of immunologically acceptable carrier and adjuvant materials.